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Harald Breivik

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EXAMINER

DEES, NIKKI H

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

1. Applicant's submission filed on September 1, 2009, has been entered. Claims 7-17 and 21-26 are currently pending in the Application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 7-12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breivik et al. (WO 00/01249).
4. Breivik et al. teach a method of farm raising fish comprising feeding them food comprising by weight 25-70 % protein, 5-60 % lipids, 0-40 % carbohydrates and 0-15 % additional components (p. 3 lines 10-17, claim 9). The lipids in the food comprise fish oil that has been treated with urea (claim 10). The oil may be treated by heating with the urea, or by reacting the oil with a mixture of urea and water. In example 8, the oil is heated with urea and kept at 140°C for 20 minutes (Examples 5 and 8).
5. Regarding Applicant's amendments to claim 7 requiring the nitrogen-containing compound to be sufficient to reduce the susceptibility of the feed to degradation through oxidation, it is noted that the teachings of Breivik et al. speak their invention where oils

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treated by urea are less exposed to oxidation and degradation than untreated oils, resulting in a feed that may be stored longer than feed with untreated oils (p. 12 lines 18-23).

6. Breivik et al. teach that the urea is removed from the oil when the oil is pretreated (Example 7). They further teach that the urea may be added directly to the food (p. 3 lines 23-25). Additionally, the feed taught by Breivik et al. comprises antioxidants including tocopherol and ascorbic acid (Example 3).

7. Breivik et al. are silent as to their method being used for feeding a marine species.

8. The method of Breivik et al. is taught for use with farm-raised fish, specifically salmon. While salmon are not, technically, marine species, one of ordinary skill would have recognized that salmon that are farmed are living in the ocean, as are marine species of fish. One of ordinary skill would have had a reasonable expectation that a method for feeding salmon feed comprising oils treated with urea in order to reduce the feed's susceptibility to degradation would have had the same beneficial effects in feeding to marine species of fish. The change in the target fish for the method of farm raising salmon as taught by Breivik et al. would have been obvious to one of ordinary skill wishing to improve the stability of the feed being fed to farmed fish. There would have been no undue experimentation required to feed the feed of Breivik et al. to species other than salmon.

9. Claims 13, 15-17 and 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breivik et al. (WO 00/01249) with evidence provided by Food Day (Global Gourmet, March 7, 1997).

10. Breivik et al. teach a method for farming fish comprising feeding them a food as detailed above.

11. Breivik et al. are silent as to their method being used for fry, cod or halibut, and to the food not containing carotenoids.

12. One of ordinary skill in the art at the time the invention was made would have recognized that the carotenoids as taught in the invention of Breivik et al. were included for the purpose of imparting color to farmed salmonoids that in the wild obtain their distinctive flesh coloring from their diet. The artisan would recognize that cod and halibut are white-fleshed fish, as shown by Food Day, and therefore it would not be desirable to include carotenoids in their diet. The omission of carotenoids from the food as taught by Breivik et al. would not have required undue experimentation on the part of the artisan. Additionally, given that the protein, lipid, carbohydrate and antioxidant content of the food would remain essentially the same as that of Breivik et al., one of ordinary skill would have a reasonable expectation that the food without the carotenoids would continue to serve as an acceptable diet for all of cod, halibut and fry.

Response to Arguments

13. Applicant's arguments filed September 1, 2009, have been fully considered but they are not persuasive.

14. Applicant argues (Remarks, p. 4) that Breivik fails to disclose or suggest the reduced ongoing oxidation of the feed as is present in the instant invention.

15. It is unclear how, as Applicant contends, that the oil of the feed of Breivik, which has been treated by the same process as the oil of the instant invention prior to being combined with the feed, does not provide the same oxidative protection to the feed of Breivik as Applicant's claim is present in their feed. One of ordinary skill would expect that oils treated by the same process prior to combining with feed would contribute in the same manner to reducing the oxidative degradation of the feed to which they were added. Applicant has failed to provide convincing evidence that this is not the case.

16. Applicant argues (Remarks, p. 5) that the instant feed has a reduced anisidine value.

17. The examiner notes that claim 1 requires the oil to have a reduced anisidine value, not the feed. Again, it is noted that the oil used in the feed of Breivik has been treated by the same process as the oil used in the feed of the instant claims. It remains unclear how the feed of Breivik, which contains oil treated by the same process as that of the instant claims, contains protein, lipids, carbohydrates, and additional components in the same amounts as required by instant claim 7, and is specifically stated by Breivik

to have improved storage stability (p. 12 lines 8-14), is different than that required for the instant claims.

18. Regarding the additional expense of the production of the feed using the method as taught by Breivik (Remarks, p. 6), Breivik notes the low quality of fats in aquaculture feeds due to oxidation of these fats (p. 2 lines 4-9). Therefore, one of ordinary skill would have expected any additional expense of the method of production of Breivik to be offset by the increased quality of the feed produced. Breivik also speaks to the enhanced storage stability of the feed of his invention (p. 12 lines 8-14). This increased storage stability would also have been expected to offset any additional increases in production costs, as the risk of the feed spoiling before it was consumed would have been reduced.

19. Regarding the "new benefit" of the presently claimed invention (Remarks, p. 6), instant claim 1 requires adding an amount of oil "to reduce the feed's susceptibility to degradation..." The enhancement of the survival and/or growth rate of the marine species is not the reason the oil is added, but rather a result of such addition.

Therefore, the fact that Breivik does not recognize an increased growth or survival rate of the species fed the feed of his invention does not render the claimed invention unobvious. Rather, one of ordinary skill reading the teachings of Breivik would have found it obvious to use an oil that has been stabilized in feeds for marine fish with the expectation that the inclusion of the stabilized oil would improve the stability of the feed.

Conclusion

20. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nikki H. Dees whose telephone number is (571) 270-3435. The examiner can normally be reached on Monday-Friday 7:30-4:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. H. D./
/Lien T Tran/
Primary Examiner, Art Unit 1794

Nikki H. Dees
Examiner
Art Unit 1794